

RM-8658

Room 222



Federal Communications Commission  
Washington, D.C. 20554

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November 27, 1995

In Reply Refer To:  
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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

The Honorable Kay Bailey Hutchison  
United States Senator  
10440 N. Central Expressway, Suite 1160  
Dallas, Texas 75231

Dear Senator Hutchison:

Thank you for your letter of October 19, 1995, on behalf of your constituent, Ronald F. Fairbrother, who raises issues regarding the potential for certain wireless telephone technologies to cause interference to hearing aids.

The next generation of wireless devices, often referred to as personal communications services (PCS), will employ various technical standards, including the Global System for Mobile Communications (GSM) standard. Recently, some concern has been raised about the potential for wireless systems using the GSM standard to cause interference to hearing aids.

In establishing PCS, the Commission relied upon its formal rulemaking procedure, a public process that solicits comments from all interested parties. As a result of this process, the Commission established technical standards to prevent interference among PCS licensees and between PCS and other radio communications services. The Commission declined, however, to specify wireless technology standards, or detailed transmission standards for PCS. Instead, the Commission provided PCS operators with the flexibility to employ transmission methods that best meet their needs and the needs of the public. In doing so, the Commission expressed its belief that, based on the record of the proceeding, this approach will allow PCS to develop in the most rapid, economically feasible, and diverse manner.

The Commission is aware of concerns regarding potential interference to hearing aids and other electronic devices by telephones that employ the GSM standard. The actual extent of potential interference, by GSM and other digital technologies, however, is not yet known. This is particularly true because the majority of the information currently available reflects experience with GSM technology in other countries. That experience may not be directly applicable to U.S. implementation of GSM, because U.S. systems will generally operate at lower power levels and in a different frequency band than non-U.S. systems. We cannot

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determine on the present record the scope of potential interference to hearing aids from digital wireless technologies, including GSM, but it does not appear that the potential to create interference is limited to any specific digital wireless technology.

As provided under Section 710 of the Communications Act (47 U.S.C. § 610), telephones used with public and private wireless systems are exempt from the statutory requirement that all telephones in the U.S. be hearing aid compatible. The statute provides for Commission review of that exemption. On June 5, 1995, a group called Helping Equalize Access Rights in Telecommunications Now (HEAR-IT NOW) filed a Petition for Rulemaking requesting that this exemption be eliminated with respect to the PCS service. Comments on that petition have been received, and the Commission is currently reviewing them to determine an appropriate course of action. The Commission has also received an industry proposal to initiate an informal consultative process that would involve hearing aid manufacturers and representatives of persons with impaired hearing in efforts to develop approaches to hearing aid compatibility, and management of interference from wireless technologies generally. That proposal is also under review.

In addition, the wireless industry has established the Center for the Study of ~~Wireless~~ Electromagnetic Compatibility at the University of Oklahoma. This center will study ~~the~~ issue of hearing aid compatibility in order to develop a more complete understanding of the potential for interference and of possible solutions. We intend to follow these efforts closely. Finally, the Commission is coordinating its efforts with the Food and Drug Administration (FDA), the lead Federal agency overseeing medical devices, including hearing aids.

I assure you that we are sensitive to the potential for wireless devices to interfere with the operation of hearing aids and other medical devices. The Commission will continue to evaluate available information as we consider possible options for addressing these issues.

Sincerely,

Gerald P. Vaughan  
Acting Chief, Wireless Telecommunications Bureau

KAY BAILEY HUTCHISON  
TEXAS

COMMITTEES:  
ARMED SERVICES  
SMALL BUSINESS  
COMMERCE, SCIENCE,  
AND TRANSPORTATION  
SELECT INTELLIGENCE

# United States Senate

WASHINGTON, DC 20510-4304

October 19, 1995

RESPECTFULLY REFERRED TO:

Legislative Affairs Director  
Federal Communications Commission  
Room 857, 1919 M. Street, NW  
Washington, D.C. 20554

The attached communication was forwarded to me by a constituent who is concerned about a matter that falls within your agency's jurisdiction. I would appreciate it if appropriate inquiries could be initiated on this individual's behalf, and if a full response could be prepared for me to report to my constituent.

It would be very helpful if the attached were to accompany your response. In the event you require more information, please do not hesitate to contact my Director of Constituent Services, Mary Fae Kamm, in Dallas at 214-361-3500.

Thank you for your courtesy.

By direction of:

KAY BAILEY HUTCHISON

PLEASE REPLY TO:

Office of Senator [REDACTED]  
Attention: Mary Fae Kamm  
10440 N. Central Expressway, Suite 1100  
LB 606  
Dallas, Texas 75243

Enclosure

PRB  
90314  
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2926 Deep Valley Trail  
Plano, Texas 75075  
September 16, 1995

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*Back to FCC*

Federal Communications Commission  
1919 M Street NW, #814  
Washington, DC 20554

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Dear Sir:

I am writing to you concerning the technology to be used for the new wireless communication services called PCS (Personal Communications Services). I have heard that a technology called GSM is being considered for approval. I would urge you to consider an alternative technology.

I am very concerned about the potential effect that this technology may have on the more than 6 million U.S. hearing-aid wearers. It is my understanding that European countries already use this technology and have found that it cannot be used by or near hearing-aid wearers. I do not feel that asking our hearing-aid users to replace or upgrade their units is a satisfactory solution. Many of these people are elderly and have limited resources. They cannot afford to replace their hearing aids.

I have also heard other problems with the GSM technology. According to an article in the July 1995 PC MAGAZINE, Sweden has banned the phones from its hospitals because "they interfere with pacemakers and electric wheelchairs". The article mentions reports of taxi meters being reset and the setting off of automobile airbags. If true, it would not be wise for us to implement this technology. Is there a potential for a GSM phone to affect a notebook PC, emergency communications equipment, or aircraft instrumentation? Remember, users would want to connect their notebooks to these phones to communicate.

In closing, I would like to state that I am not against progress. I look forward to low cost readily usable personal communications services. We must consider all the potential problems that might be caused when selecting a standard to be used.

For your information, no one in my family uses a hearing aid.

Sincerely,

Ronald F. Fairbrother

cc: Senator Phil Graham  
Senator Kay Bailey Hutcheson  
Representative Sam Johnson